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NPIC/TDS/D-750-67

22 March 1967

MEMORANDUM FOR: Deputy Chief, Development Staff, TDS

THROUGH : Chief, Support Systems Branch, DS/TDS

SUBJECT : Evaluation of Special Drying Techniques - Microwave and Vacuum Drying.

1. On 8 March 1967 a call was made to Westover AFB. Contact was made with [] Discussion included all commercial organizations the Air Force had contacted in relation to microwave and vacuum drying.

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a. [] indicated that [] of Wright-Patterson AFB would be aware of the work in microwave drying by this [] firm and by the []

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b. [] - This corporation built a 35mm microwave dryer for the movie industry. They lack interest in continuing a development program for wider photographic materials.

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c. [] - Microwave Dryer Proposal - [] indicated that this particular concept held little promise.

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d. [] informed us that [] had performed some experimental tests in drying photographic materials in microwave waveguides designed for other purposes. He also gave us a contact - [] and also indicated that [] had conducted vacuum drying experiments.

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2. 13 March 1967 [] was contacted. A discussion was held on microwave drying and what photographic applications had been considered. [] indicated that preliminary experiments in microwave drying of films had been performed but that this area of work had been transferred to another department headed by [] He indicated that [] would have knowledge of work performed with vacuum drying.

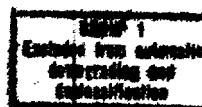
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3. On 14 March 1967 [] was contacted. [] 25X1
 was aware of the previous experiments performed by [] in utilizing 25X1
 microwaves for drying photographic films; although work had not continued in
 this area when the transfer of this responsibility occurred. [] was 25X1
 asked if any work is being performed in vacuum drying. He indicated that 25X1
 [] was involved in a combination of microwave and vacuum drying but not 25X1
 in the photographic area. [] knowledge of drying photographic
 materials is limited.

4. On 14 March 1967 [] of Wright-Patterson AFB was 25X1
 contacted. [] and his department are involved in monitoring the 25X1
 contracts for Westover in microwaves and vacuum drying.

a. An investigation contract in vacuum drying is being 25X1
 conducted for Wright-Patterson AFB by [] in Calif.
 Vacuum chambers used in food processing are being utilized
 in the drying experiments of photographic films. Separate
 experiments are being conducted to maintain a vacuum in an
 unheated chamber where film is moved in and out of a gate.

b. The best information on microwave drying equipment 25X1
 or breadboards, [] could be obtained from [] 25X1
 in []

5. On 14 March 1967 [] 25X1
 Limited) was contacted. [] explained that they have built a 9 1/2" 25X1
 microwave film dryer breadboard prototype that utilizes 1800 watts of power
 and runs at about four feet per minute. This can be demonstrated at any time.
 In [] there is a dryer for paper prints using microwave techniques 25X1
 and runs at two feet per minute. Neither the film nor paper dryer have been
 exposed to color materials.

6. As the only prototype equipment utilizing microwave techniques, 25X1
 paralleling our requirements, is in []
 would be desirable to determine the application of these techniques to our
 own requirements within NPIC. Travel orders are being prepared for this trip.

7. An attempt was made to contact [] of Westover AFB. 25X1
 [] is on TDY for several weeks. He will be contacted when he returns. 25X1



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